

Andrea Loreggia

Curriculum Vitae

Education

- 2013–2016 **PhD in Computer Science**, *University of Padova - Italy*, Doctoral School in Mathematical Sciences.
Thesis: *"Iterative Voting, Control and Sentiment Analysis"*.
Supervisor: Prof. Francesca Rossi
- 2010–2012 **Master of Computer Science**, *University of Padova - Italy*, Department of Mathematics, 110/110 Cum Laude.
Thesis: *"Iterative voting and multi-mode control in preference aggregation"*.
Supervisors: Prof. Francesca Rossi and prof. Piotr Faliszewski
- 2006–2010 **Bachelor of Computer Science**, *University of Padova - Italy*, Department of Mathematics.
Thesis: *"Simulations, Validation and Optimization of experimental clinical design: integration and software development"*.
Supervisors: Prof. Tullio Vardanega and Mattia Veronese

International Schools

- 2019 **Dagstuhl Seminar 19381**, *"Application-Oriented Computational Social Choice"*, Dagstuhl, Germany.
Centre for Advanced Studies, Joint Research Centre, European Commission, *"HUMAIN Winter school on AI and its ethical, legal, social and economic (ELSE) impact"*, Sevilla, Spain.
Co-Located with AAAI-19 - Kilauea volcanic site, Hawaii County Emergency Response Facilities, and University of Hawaii Hilo, *"Artificial Intelligence for Natural Disasters"*, Hawaii, USA.
- 2017 **Dagstuhl Seminar 17261**, *"Voting: Beyond Simple Majorities and Single-Winner Elections"*, Dagstuhl, Germany.
- 2014 **Caen Summer School**, *"Interdisciplinary Analysis of Voting Rules"*, Caen, France.
Eisenhardt Castle in Bad Belzig, *"Workshop on Challenges in Algorithmic Social Choice"*, Bad Belzig, Germany.
- 2013 **Lipari International Summer School**, *"Computational Social Science: Big Data"*, Lipari, Italy.

Working Experiences

- 2022 - Today **Assistant Professor (Tenure Track)**, UNIVERSITY OF BRESCIA, Brescia, Italy.
I'm working on consolidating existing projects and starting new collaborations. Specifically, I'm involved in the development of the metacognitive system inspired by the work of D. Kahneman in collaboration with an international and interdisciplinary research group with colleagues from IBM, IHCM, Tulane University, University of Udine, and many others. I'm also developing a system for collaborative semantic annotation of text, the application is based on the ERC projects and it was accepted at AAAI 2022 as a demo contribution.
- 2020 - 2021 **Research Associate**, EUROPEAN UNIVERSITY INSTITUTE, Firenze, Italy.
With the role of Research Associate at the European University Institute in the scope of the ERC Project CompuLaw (G.A. 833647), I'm studying how AI applications and more generally computations affect relevant interests in different socio-technical contexts, the influence chains and legal responsibilities linking computations to their deployers and designers, the extent to which harm can be prevented and remedied and computational justice and fairness be supported. In particular, my contribution is focused on studying and developing new knowledge representation frameworks that enable to embed norms and ethical principles into artificial agents. Proof-of-concepts are under development.
- 2020 - Today **Technical Coordinator Research Joint Study Agreement with IBM**, IBM, Yorktown Heights - New York - USA.
With the roles of Technical Coordinator and University Representative for the European University Institute in the scope of the Joint Study Agreement with IBM Research USA, I'm conducting theoretical and experimental research to advance Artificial Intelligence (AI) capabilities by leveraging cognitive theories of how human reason and make decisions. Results of the research were published in the proceedings of the AAAI conference 2021 in the blue sky ideas track.
- 2016 - 2019 **Postdoc**, UNIVERSITY OF PADOVA, Padova.
As a postdoc, I worked under the supervision of Prof. Francesca Rossi on the project "Safety constraints and ethical principles in collective decision making systems". The aim of the project was to study new formalisms of knowledge representation to model and reason with ethical principles in artificial agents. The research explores the use of deep learning techniques that combined with logical reasoning can approximate distance functions in metric spaces of structured preferences. Results of the research were published in the proceedings of the AAMAS conference 2018, AIES conference 2018, and in two book chapters.
- 2014 - 2020 **Partner and CFO**, ISTITUTO GALILEO FERRARIS SRL, Padova.
Human resources management and supplier relationship management. With duties for planning and developing new curricula for improving the learning approach and the students' experience. National results at the Robocup Junior, Young Business Talent.
- 2005 - Today **Founding Partner and CEO**, HIT SRL, Padova.
Human resources and customer relationship management. Main areas of interests: GDPR compliance, IT infrastructure management, cloud migration, IT solutions and integrations.
- 2005 - 2016 **Teacher**, ISTITUTO GALILEO FERRARIS SRL, Padova.
High school teacher for "Computer Science" and "Programming Languages".
- 2015 **Intern**, IBM RESEARCH, Yorktown Heights - New York - USA.
I was a visiting researcher under the supervision of Murray Campbell and Vijay Saraswat for 4 months. During the internship, I studied and developed a new approach for automating the feature generation phase in supervised classification tasks, in particular in the area of algorithm portfolios. The proposed approach uses a deep learning technique based on convolutional neural networks. The results of the research were published in the proceedings of the AAAI 2016 and patented by IBM in 2017.

2013 **Visiting PhD student**, NICTA, Sydney - Australia.

I was a visiting researcher under the supervision of prof. Toby Walsh for 3 months. During the visit, I studied and developed new models useful to represent strategic actions (like manipulation or control) in voting systems. I also implemented several experimental evaluations of the proposed models. Experiments were focused on generating voting systems using different probabilistic models like the Polya-Eggenberger urn model or the impartial culture model. Results of the research were published in the proceedings of the AAMAS conference 2015, ADT conference 2013, and in Annals of Mathematics and Artificial Intelligence in 2016.

2003 - 2005 **Network Security Consultant**, PRIMEUR, Padova.

IT Security Project Manager for several IT Security projects like Firewall Consolidation, planning, Network Security Infrastructure implementation and delivering, reverse proxy, mail relay, IDS, LDAP infrastructure for centralized authentication.

1999 - 2003 **Network Security Consultant**, INTERNET SECURITY SYSTEMS (ISS), Padova.

IT Security Project Manager for several IT Security projects like firewall consolidation; planning, Network Security Infrastructure implementation and delivering; vulnerability assessment; ethical hacking.

Awards

2019 Best Paper Award for *Metric Learning for Value Alignment* at the AISafety - IJCAI Workshop.

2013 National Award for "Best Thesis on Artificial Intelligence" of the Italian Association for Artificial Intelligence.

2010 Stage.it 2010 - Honorable mention of the judges for the "integration of knowledge and competences in research in complementary scientific areas".

Publications

Refereed Journal Publications

2023 Riccardo Bravin, Loris Nanni, Andrea Loreggia, Sheryl Brahnam, Michelangelo Paci: **Varied Image Data Augmentation Methods for Building Ensemble**. IEEE Access 11: 8810-8823 (2023)

Nanni, Loris, Sheryl Brahnam, Alessandra Lumini, and Andrea Loreggia. **Coupling RetinaFace and Depth Information to Filter False Positives**. Applied Sciences 13, no. 5 (2023): 2987

Nanni, Loris, Andrea Loreggia, Alessandra Lumini, and Alberto Dorizza. **A Standardized Approach for Skin Detection: Analysis of the Literature and Case Studies**. Journal of Imaging 9, no. 2 (2023): 35.

2022 Andrea Loreggia, Francesco Faccio, Diego Mussolin, Maurizio Zambonin: **Simulating Floating Head Pressure Control With Artificial Intelligence**. IEEE Access 10: 125963-125971 (2022)

Andrea Loreggia, Roberta Calegari, Emiliano Lorini, Francesca Rossi, Giovanni Sartor: **How to model contrary-to-duty with GCP-nets**. Intelligenza Artificiale 16(2): 185-198 (2022)

- Andrea Loreggia, Emiliano Lorini and Giovanni Sartor. **Modeling Ceteris Paribus Preferences with Deontic Logic**. To appear in the Journal of Logic and Computation 2022, doi: 10.1093/logcom/exab088
- 2021 Cristina Cornelio, Michele Donini, Andrea Loreggia, Maria Silvia Pini, and Francesca Rossi. **Voting with Random Classifiers (VORACE): Theoretical and Experimental Analysis**. Autonomous Agents and Multi-Agent Systems - 35, 22 (2021). <https://doi.org/10.1007/s10458-021-09504-y>
- 2019 Andrea Loreggia, Nicholas Mattei, Francesca Rossi, and K. Brent Venable. **CPMetric: Deep Siamese Networks for Metric Learning on Structured Preferences**. In: El Fallah Seghrouchni A., Sarne D. (eds) Artificial Intelligence. IJCAI 2019 International Workshops. IJCAI 2019. Lecture Notes in Computer Science, vol 12158. Springer, Cham. https://doi.org/10.1007/978-3-030-56150-5_11
- 2019 Stefano Quintarelli, Francesco Corea, Fabio Fossa, Andrea Loreggia, Salvatore Sapienza. **AI: profili etici. Una prospettiva etica sull'Intelligenza Artificiale: principi, diritti e raccomandazioni**. BioLaw Journal, vol. 3 (2019), p. 183-204, ISSN 2284-4503. <http://dx.doi.org/10.15168/2284-4503-448>
- 2015 Umberto Grandi, Loreggia A, Francesca Rossi, Vijay A. Saraswat. **A Borda count for collective sentiment analysis**. ANNALS OF MATHEMATICS AND ARTIFICIAL INTELLIGENCE, vol. 77, p. 281-302, ISSN: 1573-7470, doi: 10.1007/s10472-015-9488-0.
- 2014 Andrea Loreggia. **Iterative voting and multi-mode control in preference aggregation**. Intelligenza Artificiale 8 (2014) 3951. DOI 10.3233/IA-140059. IOS Press

Book Chapters

- 2022 Nanni, L., Cuza, D., Lumini, A., Loreggia, A. and Brahman, S., 2022. **Polyp Segmentation with Deep Ensembles and Data Augmentation**. In Artificial Intelligence and Machine Learning for Healthcare: Vol. 1: Image and Data Analytics (pp. 133-153). Cham: Springer International Publishing.
- Almada, M., Loreggia, A., Maranhao, J. and Sartor, G., 2022, September. **Opportunities and Limits of European Social Network Regulation**. In Demokratie und Öffentlichkeit im 21. Jahrhundert–zur Macht des Digitalen (pp. 327-352). Nomos Verlagsgesellschaft mbH & Co. KG.
- 2020 Andrea Loreggia, Nicholas Mattei, Francesca Rossi, K. Brent Venable. **Modeling and Reasoning with Preferences and Ethical Priorities in AI Systems**. In The Ethics of Artificial Intelligence, Oxford University Press, S. Matthew Liao ed., ISBN-10: 0190905034.
- 2018 A. Loreggia, N. Mattei, F. Rossi, and K. B. Venable. 2018. **Value Alignment Via Tractable Preference Distance**. In Artificial Intelligence Safety and Security, R. V. Yampolskiy (Ed.). CRC Press, ISBN-10: 1138320846.

Conference Proceedings

- 2022 Loreggia, A., Mosco, S., Zerbinati, A. (2022, June). **Sentag: A web-based tool for semantic annotation of textual documents**. In Proceedings of the AAAI Conference on Artificial Intelligence (Vol. 36, No. 11, pp. 13191-13193).

- Loreggia, A., Mattei, N., Rahgooy, T., Rossi, F., Srivastava, B., Venable, K. B. (2022, July). **Making Human-Like Moral Decisions**. In Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society (pp. 447-454).
- Loreggia, A., Passarelli, A., Pini, M. S. (2022). **The Influence of Environmental Factors on the Spread of COVID-19 in Italy**. *Procedia Computer Science*, 207, 573-582.
- Marianna Bergamaschi Ganapini, Murray Campbell, Francesco Fabiano, Lior Horesh, Jon Lenchner, Andrea Loreggia, Nicholas Mattei, Francesca Rossi, Biplav Srivastava, Kristen Brent Venable: **Thinking Fast and Slow in AI: The Role of Metacognition**. *LOD* (2) 2022: 502-509
- Alberto Zerbini, Andrea Loreggia, Giuseppe Contissa, Federico Galli, Francesca Lagioia, Giovanni Sartor: **SenTag 2.0: A Cooperative Annotation Tool**. *ISWC (Posters/Demos/Industry)* 2022
- 2021 Booch, Grady, Francesco Fabiano, Lior Horesh, Kiran Kate, Jon Lenchner, Nick Linck, Andrea Loreggia et al. **Thinking fast and slow in AI**. Proceedings of the AAAI Conference on Artificial Intelligence, 35(17), 15042-15046. Retrieved from <https://ojs.aaai.org/index.php/AAAI/article/view/17765> - Blue Sky Ideas
- 2020 Giovanni Iacca, Francesca Lagioia, Andrea Loreggia and Giovanni Sartor. **A Genetic Approach to the Ethical Knob**. In: Volume 334: Legal Knowledge and Information Systems. vol. 334, p. 103-112, IOS Press: Frontiers in Artificial Intelligence and Applications Series, Online, 2020, doi: 10.3233/FAIA200854
- 2020 Andrea Loreggia, Nicholas Mattei and Stefano Quintarelli. **Artificial Intelligence Research for Fighting Political Polarisation: A Research Agenda**. First International Forum on Digital and Democracy (IFDaD 2020)
- 2020 Andrea Loreggia, Emiliano Lorini and Giovanni Sartor. **A Ceteris Paribus Deontic Logic**. *CILC - 35th Edition of the Italian Conference on Computational Logic (CILC 2020)*
- 2020 Awad, Edmond, Sydney Levine, Andrea Loreggia, Nicholas Mattei, Iyad Rahwan, Francesca Rossi, Kartik Talamadupula, Joshua Tenenbaum, and Max Kleiman-Weiner. **When Is It Morally Acceptable to Break the Rules? A Preference-Based Approach**. *AAAI - 13th Multidisciplinary Workshop on Advances in Preference Handling (M-PREF20)*
- 2020 Cornelio, Cristina, Michele Donini, Andrea Loreggia, Maria Silvia Pini, and Francesca Rossi. **Voting with Random Classifiers (VORACE)**. In Proceedings of the 19th International Conference on Autonomous Agents and MultiAgent Systems, pp. 1822-1824. 2020.
- 2019 Andrea Loreggia, Nicholas Mattei, Francesca Rossi and Kristen Brent Venable. 2019. **Metric Learning for Value Alignment**. Proceedings of the 1st IJCAI-19 Workshop on Artificial Intelligence Safety.
- 2019 Francesca Rossi and Andrea Loreggia. **Preferences and Ethical Priorities: Thinking Fast and Slow in AI**. In: International Joint Conference on Autonomous Agents and Multiagent Systems, AAMAS. vol. 1, p. 3-4, ISBN: 978-151089200-2

- 2018 Michele Donini, Andrea Loreggia, Maria Silvia Pini, Francesca Rossi. **Voting with Random Neural Networks: a Democratic Ensemble Classifier**. RiCeRcA Workshop co-located with the 17th International Conference of the Italian Association for Artificial Intelligence, RiCeRcA@Ai*iA 2018
- 2018 Andrea Loreggia, Nicholas Mattei, Francesca Rossi and Kristen Brent Venable. **On the Distance Between CP-nets**. In: Proceedings 17th International Conference on Autonomous Agents and Multiagent Systems. p. 955-963, Richland, SC, USA / ACM:International Foundation for Autonomous Agents and Multiagent Systems, Stockholm, 10-15 Luglio 2018
- 2018 Andrea Loreggia, Nicholas Mattei, Francesca Rossi and Kristen Brent Venable. **Preferences and Ethical Principles in Decision Making**. In: Proceedings 1st AAAI-ACM Conference on Artificial Intelligence, Ethics and Society (AIES 2018). New Orleans, 2018, doi: 10.1145/3278721.3278723
- 2018 Andrea Loreggia, Nicholas Mattei, Francesca Rossi and Kristen Brent Venable. **A Notion of Distance Between CP-nets**. AAAI - 11th Multidisciplinary Workshop on Advances in Preference Handling (M-PREF18)
- 2017 Andrea Loreggia, Nicholas Mattei, Francesca Rossi and Kristen Brent Venable. **A Notion of Distance Between CP-nets**. 26th International Joint Conference on Artificial Intelligence: Fifth International Workshop on Graph Structures for Knowledge Representation and Reasoning (GKR 2017)
- 2017 Andrea Lorreggia, Francesca Rossi, Kristen Brent Venable. **Modeling Ethical Theories Compactly**. 31th AAAI Conference on Artificial Intelligence: 3rd International Workshop on AI, Ethics and Society
- 2016 Andrea Lorreggia, Horst Samulowitz, Yuri Malitsky, Vijay Saraswat. **Deep Learning for Algorithm Portfolios**. In: Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, February 12-17, 2016, Phoenix, Arizona, USA. p. 1280-1286
- 2015 Andrea Loreggia, Nina Narodytska, Francesca Rossi, K. Brent Venable, Toby Walsh. **Controlling Elections by Replacing Candidates or Votes**. In: Proceedings of the 2015 International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2015, Istanbul, Turkey, May 4-8, 2015. p. 1737-1738
- 2014 Umberto Grandi, Andrea Loreggia, Francesca Rossi, Vijay Saraswat. **From Sentiment Analysis to Preference Aggregation**. International Symposium on Artificial Intelligence and Mathematics, ISAIM 2014, Fort Lauderdale, FL, USA, January 6-8, 2014. Fort Lauderdale, FL, USA, 2014
- 2013 Umberto Grandi, Andrea Loreggia, Francesca Rossi, Kristen Brent Venable and Toby Walsh. **Restricted Manipulation in Iterative Voting: Condorcet Efficiency and Borda Score**. In: Algorithmic Decision Theory - Third International Conference, ADT 2013, Bruxelles, Belgium, November 12-14, 2013, Proceedings. p. 181-192, doi: 10.1007/978-3-642-41575-3_14
- 2013 Umberto Grandi, Andrea Loreggia, Francesca Rossi, Kristen Brent Venable and Toby Walsh. **Restricted Manipulation in Iterative Voting: Condorcet Efficiency and Borda Score**. In Proceedings of the 7th Multidisciplinary Workshop on Advances in Preference Handling, August 2013

- 2013 Mattia Veronese, Stefano Zamuner, Andrea Loreggia, Alessandra Bertoldo. **Aodware: a model-based application for optimal and adaptive optimal experimental design exploration**. American Conference on Pharmacometrics 2013. Ft.Lauderdale, Florida.(poster presentation)

Writing for Outside Audiences

- 2022 SARTOR, Giovanni, and Andrea LOREGGIA. **The impact of Pegasus on fundamental rights and democratic processes**. Commissioned by European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs. [https://www.europarl.europa.eu/thinktank/it/document/IPOL_STU\(2022\)740514](https://www.europarl.europa.eu/thinktank/it/document/IPOL_STU(2022)740514)
- 2021 **Artificial Intelligence Demystified**. Commissioned by Economic Commission for Europe Centre For Trade Facilitation and Electronic Business - Advisory Group on Advanced Technologies in Trade and Logistics. <https://unece.org/sites/default/files/2021-07/AGAT-AI-Brochure.pdf>
- 2021 Francesco Corea, Fabio Fossa, Andrea Loreggia, Stefano Quintarelli e Salvatore Sapienza. *Algorithmic bias, filter bubbles e echo chambers*. **Pandora Rivista**, 01/2021
- 2021 Anna Barisan, Andrea Loreggia. *Intelligenza artificiale, così aiuterà a raggiungere gli obiettivi di sviluppo sostenibile*. **Agenda Digitale**
- 2020 Andrea Loreggia, Giovanni Sartor. *La Moderazione Digitale: libertà d'espressione e comportamenti scorretti in rete*. **Agenda Digitale**
- 2020 Andrea Loreggia, Stefano Quintarelli. *Digitale e democrazia: perché sia evoluzione sostenibile*. **Agenda Digitale**
- 2020 Giovanni Sartor and Andrea Loreggia. **The impact of algorithms for online content filtering or moderation - Upload filters**. Commissioned by the European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs at the request of the JURI Committee. [https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2020\)657101](https://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2020)657101)
- 2019 Francesco Corea, Fabio Fossa, Andrea Loreggia, Salvatore Sapienza, and Stefano Quintarelli. **Contribution on Ethical Principles in "The Ethics and Law of AI"**. Commissioned by Fondazione Leonardo Civiltà delle Macchine. https://fondazioneleonardo-cdm.com/site/assets/files/2450/fle1_booklet_conferenza_eng_gar_311019.pdf

Books

- 2020 Stefano Quintarelli, Claudia Giulia Ferrauto, Fabio Fossa, Francesco Corea, Andrea Loreggia, Salvatore Sapienza. **Intelligenza artificiale. Cos'è davvero, come funziona, che effetti avrà**. Bollati Boringhieri, ISBN-10: 8833935426.

Invited Talks (not including conference presentations)

- 2023 **"Making Human-Like Moral Decisions"** - Invited talk - 2nd Computational Machine Ethics (CME) Workshop KR 2023 - Rhodes, Greece - 3 September 2023
- "Creatività artificiale: rischi ed opportunità"** - Invited talk - "Metaverso. Un viaggio iperculturale" - 20 giugno Vittoriale degli Italiani Gardone

- 2021 **"Cybersecurity e AI"** - Invited talk - Online Webinar - ISACA Venice Chapter - Caffè Digitali - Workstream: data protection - 08 October 2021
- 2021 **"Holistic Approach Implementing AI/ML"** - Invited talk - Online Webinar - Advisory Group on Advanced Technologies (AGAT) - The new opportunities for Artificial Intelligence as a contributor supporting sustainability and circular economy in the current world - 15 July 2021
- "Intelligenza artificiale e sicurezza: opportunità, rischi e raccomandazioni"** - Invited talk - Security Summit - Streaming Edition 2021 – CLUSIT - 17 March 2021
- "Clustered Majority Judgement"** - Invited talk - Master in Comunicazione e Marketing Politico e Istituzionale – Luiss School of Government - 13 February 2021
- 2020 **"AI/ML for International Trade"** - Invited talk - 35th UN/CEFACT Forum Webinar: Technology Developments: Potential for Impacting Cross-Border Trade - 11 November 2020 - Online Event
- "AI and Medicine, an introduction"** - NeoForum 2020 - New Jersey - USA (cancelled due to COVID-19 restrictions)
- "Trustworthy AI: where is the ethical issue?"** - NeoForum 2020 - New Jersey - USA (cancelled due to COVID-19 restrictions)
- 2019 **"AI e il Problema Etico"** - Panel - XIV Convegno dell'Associazione Italiana di Tecnologie Manifatturiere. Padova - Italy - 11 September 2019
- Invited mentor - SP-AIES 2019 - New Orleans - USA

Patents

- 2017 **Deep learning for algorithm portfolios** *US 9547821 B1*

Committee and reviewer service

- Associate Editor AI Magazine, official publication of the Association for the Advancement of Artificial Intelligence (AAAI). Online ISSN:2371-9621
- Project reviewer Swiss National Science Foundation
- Chair Ethics and Trust in Human-AI Collaboration: Socio-Technical Approaches - IJCAI 2023
- Thinking Fast and Slow and Other Cognitive Theories in AI - AAAI 2022 Fall Symposium
- Metacognition in the Age of Deep Learning: Challenges and Opportunities in Embodied AI - NeurIPS 2021
- International Forum on Digital and Democracy 2020
- 1st Workshop on Iterative Voting and Voting Games 2014
- AI*IA 2014 Doctoral Consortium

Senior Program Committee	AAAI (National Conference on Artificial Intelligence) 2024
	IJCAI (International Joint Conference on Artificial Intelligence) 2021
Program Committee	IEEE International Conference on Big Data 2023, 2022, 2021
	ICMLA (IEEE International Conference on Machine Learning and Applications) 2022, 2021
	PC-member of the IJCAI-ECAI 22 Special track on AI for Good 2022
	IJCAI (International Joint Conference on Artificial Intelligence) program committee 2023, 2022, 2020, 2015
	AAAI (National Conference on Artificial Intelligence) program committee 2023, 2022, 2021, 2020, 2019, 2015, 2014
	AAMAS (International Conference on Autonomous Agents and Multiagent Systems) program committee 2024, 2020, 2019
	ECAI (European Conference on Artificial Intelligence) 2016
	AIES (AAAI/ACM Conference on AI, Ethics, and Society) program committee 2022, 2019, SP-AIES 2019
Journal Reviewing	Journal of Artificial Intelligence Research (JAIR), IEEE Intelligent Systems, International Journal of Technoethics (IJT), Artificial Intelligence and Law (ARTI), Information Systems, Annals of Mathematics and Artificial Intelligence, NeuroComputing
PhD reviewer	PHD FINAL EXAMINATION 2022 - REVIEW. Maguolo Gianluca. "Methods for Learning Ensembles of Deep Neural Networks".
Sub-reviewer	AIES 2021, AAMAS 2017, AAAI 2016, TARK 2015, PLDI 2014.
Volunteer	IJCAI-13 Student Volunteer Program in Beijing, China. IJCAI-11 Student Volunteer Program in Barcelona, Spain.

Services and Boards

Membership	Group of experts of UN/CEFACT - since 2020
	Board of the 36th Doctoral School in Law, Science and Technology - University of Bologna
	Admission Board of the 36th Doctoral School in Law, Science and Technology - University of Bologna
	Working group on "Artificial Intelligence and Ethics" at Fondazione Leonardo - Civiltà delle Macchine .

Teaching

My teaching activity has been carried out in the areas of Fundamentals of Computer Science and Artificial Intelligence. I have taught courses for the Undergraduate Curriculum in Computer Science at University of Padova, and for the Undergraduate Curriculum in Computer Engineering at University of Padova, and the Graduate Curriculum in Computer Science of University of Padova.

Below I give a detailed list of the courses I have been involved with, organized in academic years.

2021-2022 **Fall Semester**

Adjunct Professor - Foundations of Computer Science (9 CFU), *Undergraduate Curriculum in Product Innovation Engineering and Mechatronic Engineering*, University of Padova.

2020-2021 **Spring Semester**

Adjunct Professor - Introduction to Artificial Intelligence (3 CFU), *Undergraduate Curriculum in Information Engineering*, University of Padova,
Valutazione della Didattica (Mediane - questionari 97): Soddisfazione Complessiva 9.00 - Organizz. Online 9.25 - Indicatore Azione Didattica 9.00.

Assistant - Ethics in Artificial Intelligence, *Second cycle degree programme (LM) in Artificial Intelligence*, University of Bologna.

Feb. 2021 **Non-Symbolic AI (6 hours)**, *Joint International Doctoral (Ph.D) degree in Law, Science and Technology*, University of Bologna.

Fall Semester

Adjunct Professor - Foundations of Computer Science (9 CFU), *Undergraduate Curriculum in Product Innovation Engineering and Mechatronic Engineering*, University of Padova,
Valutazione della Didattica (Mediane - questionari 100): Soddisfazione Complessiva 8.00 - Organizz. Online 9.13 - Indicatore Azione Didattica 9.00.

2019-2020 **Spring Semester**

Adjunct Professor - Introduction to Artificial Intelligence (3 CFU), *Undergraduate Curriculum in Information Engineering*, University of Padova,
Valutazione della Didattica (Mediane - questionari 122): Soddisfazione Complessiva 7.00 - Azione Didattica 7.50 - Organizzazione 8.00 - Organizzazione Online 8.5.

Fall Semester

Adjunct Professor - Foundations of Computer Science (9 CFU), *Undergraduate Curriculum in Product Innovation Engineering and Mechatronic Engineering*, University of Padova,
Valutazione della Didattica (Mediane - questionari 223): Soddisfazione Complessiva 8.00 - Aspetti Organizzativi 8.25- Azione Didattica 8.00.

2018-2019 **Spring Semester**

Intelligent Systems, *Graduate Curriculum in Information Engineering*, University of Padova, Chair: prof. Maria Silvia Pini, Teaching assistant.

Adjunct Professor - Introduction to Artificial Intelligence (3 CFU), *Undergraduate Curriculum in Information Engineering*, University of Padova,
Valutazione della Didattica (Mediane - risposte valide 63): Soddisfazione Complessiva 8.00 - Indicatore Aspetti Organizzativi 8.50 - Indicatore Azione Didattica 8.00.

Fall Semester

- Assistant - Foundations of Computer Science**, *Undergraduate Curriculum in Engineering and management*, University of Padova, Chair: prof. Maria Silvia Pini.
- 2017-2018 **Spring Semester**
- Assistant - Artificial Intelligence**, *Graduate Curriculum in Computer Science*, University of Padova, Chair: prof. Maria Silvia Pini.
- Assistant - Introduction to Artificial Intelligence**, *Undergraduate Curriculum in Information Engineering*, University of Padova, Chair: prof. Silvana Badaloni.
- Fall Semester**
- Assistant - Foundations of Computer Science**, *Undergraduate Curriculum in Engineering and management*, University of Padova, Chair: prof. Maria Silvia Pini.
- Assistant - Foundations of Computer Science**, *Undergraduate Curriculum in Engineering and management*, University of Padova, Chair: prof. Giuseppe Satta.
- 2016-2017 **Assistant - Web Technologies**, *Undergraduate Curriculum in Computer Science*, University of Padova, Chair: prof. Ombretta Gaggi.
- 2012-2013 **Assistant - Computer Systems 1**, *Undergraduate Curriculum in Statistics for Economics and Business*, University of Padova, Chair: prof. Massimo Maresca.
- 2008-2009 **Assistant - Foundations of Computer Science**, *Undergraduate Curriculum in Computer Engineering.*, University of Padova, Chair: prof. Laura Bazzanella.

Talks

- 2020 **A Ceteris Paribus Deontic Logic**. Online presentation – CILC 2020
- Voting with Random Classifiers**. Online presentation – AAMAS 2020
- 2019 **Towards a SAFE Artificial Intelligence**. Paris, France, Social Responsibility of Algorithms – SRA 2019
- 2018 **On the Distance Between CP-nets**. Stockholm, Sweden, AAMAS 2018
- Preferences and Ethical Principles in Decision Making**. New Orleans - AIES 2018
- A Notion of Distance Between CP-nets**. New Orleans - AAI 2018
- 2017 **Knowledge Reasoning: Towards a Combined Approach for Explainable Decision Making**. IBM T.J.Watson, New York
- Modeling Ethical Theories Compactly**. San Francisco - AAI 2017
- 2016 **Deep Learning for Algorithm Portfolios**. Phoenix - AAI 2016
- 2015 **Deep Learning for Algorithm Portfolios**. Yorktown Heights - IBM Research
- 2014 **From sentiment analysis to preference aggregation**. Bad Belzig - CASC 2014.
- Controlling elections by replacing candidates for plurality and veto: theoretical and experimental results**. Paris - EXPLORE 2014
- Beneficial Strategic Reasoning in Iterative Voting. 1st Workshop on Iterative Voting and Voting Games**. Padova
- 2013 **Iterative voting and multi-mode control in preference aggregation**. Torino - AI*IA 2013

Restricted Manipulation in Iterative Voting: Condorcet Efficiency and Borda Score. Bruxelles - ADT 2013

Restricted Manipulation in Iterative Voting: Condorcet Efficiency and Borda score. Beijing - MPREF 2013

Iterative voting and multi-mode control in preference aggregation. Sydney - NICTA

Student Advising

A list of graduate/undergraduate students I have collaborated with and the topics that were jointly considered.

Graduate Students

2019-2020 Barisan Anna, University of Padova - Department of Information Engineering. Title: **Artificial Intelligence for Sustainability** . Supervisor: Andrea Loreggia.

Passarelli Anna, University of Padova - Department of Information Engineering. Title: **Data analysis for the study of correlation between air quality and the spread of the COVID-19 pandemic.** Supervisor: Andrea Loreggia.

Undergraduate Students

2021-2021 Alberto Zerbinati, University of Padova - Department of Information Engineering. Title: **SenTag: Implementation of a Web Platform for Text Annotation.** Supervisor: Andrea Loreggia.

Simone Mosco University of Padova - Department of Information Engineering. Title: **Implementation of a Cooperative Multiuser Web Platform for Text Annotation.** Supervisor: Andrea Loreggia.

2019-2020 Laura Menotti, University of Padova - Department of Information Engineering. Title: **Ethics' role in the diffusion of AI systems.** Supervisor: Andrea Loreggia.

Pivato Sandy, University of Padova - Department of Information Engineering. Title: **Artificial Intelligence and Fake News: creation, spread and identification.** Supervisor: Andrea Loreggia.

Roberto Vicentini, University of Padova - Department of Information Engineering. Title: **Seismic vulnerability of existing masonry buildings: design and development of a web portal.** Supervisor: Andrea Loreggia.

2018-2019 Leonardo Scantamburlo, University of Padova - Department of Information Engineering. Title: **On the usage of neural networks for weather forecasting.** Supervisor: prof. Maria Silvia Pini.

2017-2018 Emanuele Maruzzi, University of Padova - Department of Information Engineering. **Sentiment Analysis: Application and state-of-the-art.** Supervisor: prof. Maria Silvia Pini.

Federico Anselmo Scremin, University of Padova - Department of Information Engineering. **A Neural Network for Human Activity Recognition.** Supervisor: prof. Maria Silvia Pini.

Attended Conferences

- 2019 **Social Responsibility of Algorithms – SRA 2019.** Paris, France.
The Ethics and Law of AI. Parliament Committees Hall, Rome - Italy.
Thirty-third AAAI Conference on Artificial Intelligence. Honolulu, Hawaii - USA.
Second AI Ethics and Society. Honolulu, Hawaii - USA.
- 2018 **World Summit AI.** Gashouder, Amsterdam, Netherlands.
International Conference on Autonomous Agents and Multiagent Systems. Stockholm, Sweden.
Thirty-second AAAI Conference on Artificial Intelligence. New Orleans, Louisiana USA.
- 2017 **Thirty-first AAAI Conference on Artificial Intelligence.** San Francisco, California USA.
- 2016 **Thirtieth AAAI Conference on Artificial Intelligence.** Phoenix, Arizona USA.
- 2014 **Third Symposium of the Italian Association for Artificial Intelligence "Artificial Intelligence for Society and Economy".** Pisa, Italy
Meeting of Cost Action IC1205 on Computational Social Choice. Sibiu, Romania
Workshop on Challenges in Algorithmic Social Choice (CASC 2014). Bad Belzig, Germany
First Workshop on Exploring Beyond the Worst Case in Computational Social Choice (EXPLORE 2014). Paris, France
First Workshop on Iterative Voting and Voting Games. Padova, Italy
- 2013 **Twelfth Conference of the Italian Association for Artificial Intelligence.** Turin, Italy
Third International Conference on Algorithmic Decision Theory. Bruxelles, Belgium
Twenty-third International Conference on Artificial Intelligence. Beijing, China

Computer skills

Advanced JAVA, PYTHON, Keras, Deep Learning, PHP, C, C++, MATLAB, \LaTeX , HTML, Computer Hardware and Support

Personal Skills

Team Leading, Problem Solving

Languages

English **Intermediate B2**
Spanish **Basic**

Conversationally fluent
Basic words and phrases only